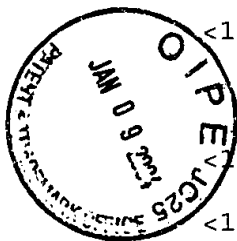


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<213> HUMAN

<220>

<221> intron

<222> (1)..(512)

<223> 7th MN intron

<400> 45

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cacgttgagg ggctgaggtg ggagaatggt ttgagcccag gagttcaaga caaggcgggg 180
caacatagtg tgaccccatc tctacaaaa aaacccaac aaaacaaaa atagccgggc 240
atggtggtat gcggcctagt ccagctact caaggaggct gaggtgggaa gatcgcttga 300
ttccaggagt ttgagactgc agtgagctat gatccacca ctgcctacca tctttaggat 360
acatttat ttataaaaa gaaatcaaga ggctggatgg ggaatacagg agctggaggg 420
tgagaccctg aggtgctggt tgtgagctgg cctgggaccc ttgtttcctg tcatgccatg 480
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<211> 114

<212> DNA

<213> HUMAN

<220>

<221> intron

<222> (1)..(114)

<223> 8th MN intron

<400> 46

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<211> 617

<212> DNA

<213> HUMAN

<220>

<221> intron

<222> (1)..(617)

<223> 9th MN intron

<400> 47

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atattagaga ggcagatcat ggtggggatt cccccattgt cccagagggc taattgatta 180
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 aagcaaaaac ggtgcttata ttacccttct tcgtgtatcc accctcatcc cttggctggc 480
 ctcttctgga gactgaggca ctatggggct gcctgagaac tcggggcagg ggtggtggag 540
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<210> 48
 <211> 130
 <212> DNA
 <213> HUMAN

<220>
 <221> intron
 <222> (1)..(130)
 <223> 10th MN intron

<400> 48
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 gtacacacag 130

<210> 49
 <211> 1401
 <212> DNA
 <213> HUMAN

<400> 49
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 tacaggcatg cgccaccacg cccggctaata ttttgtattt ttagtagaga cggggtttcg 180
 ccatgttggg caggctgggc tcgaactcct gatctcaggt gatccaacca ccctggcctc 240
 ccaaagtgtc gggattatag gcgtgagcca cagcgcttgg cctgaagcag ccaactcactt 300
 ttacagaccc taagacaatg attgcaagct ggtaggattg ctgtttggcc caccagctg 360
 cgggtgttgag tttgggtgcg gtctcctgtg ctttgcacct ggcccgctta aggcatttgt 420
 taccogtaat gctcctgtaa ggcactctgc tttgtgacat cgttttgggc gccaggaagg 480

gattggggct ctaagcttga gcggttcac cttttcattt atacagggga tgaccagagt 540
cattggcgct atggaggtga gacacccacc cgctgcacag acccaatctg ggaacccagc 600
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cagatcctgg acacccccta c 1401

<210> 50
<211> 59
<212> PRT
<213> HUMAN

<400> 50
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Glu Asp Ser Pro Arg Glu Glu Asp Pro Pro Gly Glu Glu Asp Leu Pro
20 25 30
Gly Glu Glu Asp Leu Pro Gly Glu Glu Asp Leu Pro Glu Val Lys Pro
35 40 45
Lys Ser Glu Glu Glu Gly Ser Leu Lys Leu Glu
50 55

<210> 51
<211> 257
<212> PRT
<213> HUMAN

<400> 51

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Arg	Val	Ser	Pro	Ala	Cys	Ala	Gly	Arg	Phe	Gln	Ser	Pro	Val	Asp	Ile			
			20					25					30					
Arg	Pro	Gln	Leu	Ala	Ala	Phe	Cys	Pro	Ala	Leu	Arg	Pro	Leu	Glu	Leu			
		35					40					45						
Leu	Gly	Phe	Gln	Leu	Pro	Pro	Leu	Pro	Glu	Leu	Arg	Leu	Arg	Asn	Asn			
	50					55					60							
Gly	His	Ser	Val	Gln	Leu	Thr	Leu	Pro	Pro	Gly	Leu	Glu	Met	Ala	Leu			
65					70					75					80			
Gly	Pro	Gly	Arg	Glu	Tyr	Arg	Ala	Leu	Gln	Leu	His	Leu	His	Trp	Gly			
				85					90					95				
Ala	Ala	Gly	Arg	Pro	Gly	Ser	Glu	His	Thr	Val	Glu	Gly	His	Arg	Phe			
			100					105					110					
Pro	Ala	Glu	Ile	His	Val	Val	His	Leu	Ser	Thr	Ala	Phe	Ala	Arg	Val			
		115					120					125						
Asp	Glu	Ala	Leu	Gly	Arg	Pro	Gly	Gly	Leu	Ala	Val	Leu	Ala	Ala	Phe			
	130					135					140							
Leu	Glu	Glu	Gly	Pro	Glu	Glu	Asn	Ser	Ala	Tyr	Glu	Gln	Leu	Leu	Ser			
145					150					155					160			
Arg	Leu	Glu	Glu	Ile	Ala	Glu	Glu	Gly	Ser	Glu	Thr	Gln	Val	Pro	Gly			
				165					170					175				
Leu	Asp	Ile	Ser	Ala	Leu	Leu	Pro	Ser	Asp	Phe	Ser	Arg	Tyr	Phe	Gln			
			180					185					190					
Tyr	Glu	Gly	Ser	Leu	Thr	Thr	Pro	Pro	Cys	Ala	Gln	Gly	Val	Ile	Trp			
		195					200					205						
Thr	Val	Phe	Asn	Gln	Thr	Val	Met	Leu	Ser	Ala	Lys	Gln	Leu	His	Thr			
	210					215					220							
Leu	Ser	Asp	Thr	Leu	Trp	Gly	Pro	Gly	Asp	Ser	Arg	Leu	Gln	Leu	Asn			
225					230					235					240			
Phe	Arg	Ala	Thr	Gln	Pro	Leu	Asn	Gly	Arg	Val	Ile	Glu	Ala	Ser	Phe			
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Pro

<210> 52
 <211> 20
 <212> PRT
 <213> HUMAN

<400> 52

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Phe Leu Val Gln
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<210> 53
 <211> 25
 <212> PRT
 <213> HUMAN

<400> 53
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 1 5 10 15

Pro Ala Glu Val Ala Glu Thr Gly Ala
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<210> 54
 <211> 59
 <212> PRT
 <213> HUMAN

<400> 54
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 1 5 10 15

Glu Pro Ser Pro Ser Glu Glu Pro Phe Pro Ser Val Arg Pro Phe Pro
 20 25 30

Ser Val Val Leu Phe Pro Ser Glu Glu Pro Phe Pro Ser Lys Glu Pro
 35 40 45

Ser Pro Ser Glu Glu Pro Ser Ala Ser Glu Glu
 50 55

<210> 55
 <211> 470
 <212> RNA
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<400> 55
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 cugcaaaaagg ggcucucugug agucagccug cuccccucca ggcuugcucc uccccaccc 180
 agcucucguu uccaaugcac guacagcccg uacacaccgu gugcugggac accccacagu 240
 cagccgcaug gcuccccugu gcccagccc cuggcuccu cuguugaucc cggccccugc 300
 uccaggccuc acugugcaac ugcugcuguc acugcugcuu cuggugccug uccaucacca 360
 gagguugccc cggaugcagg aggauucucc cuugggagga ggcucuucug gggaagauga 420

cccacugggc gaggaggauc ugcccaguga agaggauuca cccagagagg

470

<210> 56
<211> 292
<212> DNA
<213> HUMAN

<400> 56
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agtagctggg actacaggcg cccgccacca tgcccggcta attttttgta tttttggtag 180
agacgggggtt tcaccgtgtt agccagaatg gtctcgatct cctgacttcg tgatccaccc 240
gcctcggcct cccaaagtcc tgggattaca ggtgtgagcc accgcacctg gc 292

<210> 57
<211> 262
<212> DNA
<213> HUMAN

<400> 57
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tagctgggac tacaggcaca tgccattaca cctgggcta attttttgat ttctagtaga 180
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cacctcagcc tccc aaaatg ag 262

<210> 58
<211> 2501
<212> DNA
<213> HUMAN

<220>
<221> misc_feature
<222> (1)..(2501)

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gcatgctcgt taagagtcac caccaatccc taatctcaag taatcaggga cacaacact 180
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tgaccttccc tccactattg tccatgacct tgccaaatcc ccctctgtga gaaacaccca 300
agaattatca ataaaaaaat aaatttaaaa aaaaaataca aaaaaaaaaa aaaaaaaaaa 360

aaaagactta cgaatagtta ttgataaatg aatagctatt ggtaaagcca agtaaagat 420
 catattcaaa accagacggc catcatcaca gctcaagtct acctgatttg atctctttat 480
 cattgtcatt ctttggattc actagattag tcatcatcct caaaattctc cccaagttc 540
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 ttgagccatg agttgttaga atgatgagtt tacaccttac atgctgggga ttaatttaaa 660
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aagataatTT gtctTTaaca gaatcaataa tataatccct taaaggatta tatctTTgct 2160
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catcccattt cagcctcctg agtagctggg actacaggca c 2501

<210> 59
<211> 292
<212> DNA
<213> HUMAN

<220>
<221> misc_feature
<222> (1)

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gtagctggga ctacaggcgc ccgccaccat gcccgGctaa tTTTTgtat tTTtggtaga 180
gacggggTTt caccgtgtta gccagaatgg tctcgatctc ctgacttcgt gatccaccG 240
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<211> 262
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<400> 60
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acctcagcct cccaaaatga gg 262

<210> 61
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<212> DNA
<213> HUMAN

<400> 61
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 aagtagctgc gattacaggc atgcgccacc acgcccggct aatttttgta ttttttagtag 180
 agacgggggtt tcgcatgtt ggtcaggctg gtctcgaact cctgatctca ggtgatccaa 240
 ccaccctggc ctcccaaagt gctgggatta taggcgtgag ccacagcgcc tggc 294

<210> 62
 <211> 276
 <212> DNA
 <213> HUMAN

<400> 62
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 gtgtgtgcca ccatgcccag ctaatttttt tttgtatttt tagtagacag ggtttcacca 180
 tgttggtcag gctgggtctca aactcctggc ctcaagtgat ccgcctgact cagcctacca 240
 aagtgctgat tacaagtgtg agccaccgtg cccagc 276

<210> 63
 <211> 289
 <212> DNA
 <213> HUMAN

<400> 63
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 ctgaggcagg agaatggcat gaaccggga ggcagaagtt gcagtgagcc gagatcgtgc 240
 cactgcactc cagcctgggc aacagagcga gactcttgct tcaaaaaaa 289

<210> 64
 <211> 298
 <212> DNA
 <213> HUMAN

<400> 64
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 caaaaaaacc ccaacaaaac caaaaatagc cgggcatggt ggtatgcggc ctagtcccag 180

ctactcaagg aggctgaggt gggaagatcg cttgattcca ggagtttgag actgcagtga 240
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<211> 105
<212> DNA
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<400> 65
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<212> DNA
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<400> 66
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aggcatgagc cactgtgcct ggc 83

<210> 67
<211> 11
<212> DNA
<213> HUMAN

<400> 67
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<210> 68
<211> 11
<212> DNA
<213> HUMAN

<400> 68
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<210> 69
<211> 11
<212> DNA
<213> HUMAN

<400> 69
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<210> 70
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ccccaggagg g	11
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ccctagctcc a 11

<210> 84
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<212> DNA
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<400> 84
ctccagttcca g 11

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<212> DNA
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<400> 85
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<212> DNA
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<400> 86
acacagaagg g 11

<210> 87
<211> 377
<212> PRT
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<400> 87
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Asp Ser Pro Arg Glu Glu Asp Pro Pro Gly Glu Glu Asp Leu Pro Gly
35 40 45
Glu Glu Asp Leu Pro Gly Glu Glu Asp Leu Pro Glu Val Lys Pro Lys
50 55 60
Ser Glu Glu Glu Gly Ser Leu Lys Leu Glu Asp Leu Pro Thr Val Glu
65 70 75 80
Ala Pro Gly Asp Pro Gln Glu Pro Gln Asn Asn Ala His Arg Asp Lys
85 90 95
Glu Gly Asp Asp Gln Ser His Trp Arg Tyr Gly Gly Asp Pro Pro Trp
100 105 110

Pro	Arg	Val	Ser	Pro	Ala	Cys	Ala	Gly	Arg	Phe	Gln	Ser	Pro	Val	Asp	115	120	125
Ile	Arg	Pro	Gln	Leu	Ala	Ala	Phe	Cys	Pro	Ala	Leu	Arg	Pro	Leu	Glu	130	135	140
Leu	Leu	Gly	Phe	Gln	Leu	Pro	Pro	Leu	Pro	Glu	Leu	Arg	Leu	Arg	Asn	145	150	155
Asn	Gly	His	Ser	Val	Gln	Leu	Thr	Leu	Pro	Pro	Gly	Leu	Glu	Met	Ala	165	170	175
Leu	Gly	Pro	Gly	Arg	Glu	Tyr	Arg	Ala	Leu	Gln	Leu	His	Leu	His	Trp	180	185	190
Gly	Ala	Ala	Gly	Arg	Pro	Gly	Ser	Glu	His	Thr	Val	Glu	Gly	His	Arg	195	200	205
Phe	Pro	Ala	Glu	Ile	His	Val	Val	His	Leu	Ser	Thr	Ala	Phe	Ala	Arg	210	215	220
Val	Asp	Glu	Ala	Leu	Gly	Arg	Pro	Gly	Gly	Leu	Ala	Val	Leu	Ala	Ala	225	230	235
Phe	Leu	Glu	Glu	Gly	Pro	Glu	Glu	Asn	Ser	Ala	Tyr	Glu	Gln	Leu	Leu	245	250	255
Ser	Arg	Leu	Glu	Glu	Ile	Ala	Glu	Glu	Gly	Ser	Glu	Thr	Gln	Val	Pro	260	265	270
Gly	Leu	Asp	Ile	Ser	Ala	Leu	Leu	Pro	Ser	Asp	Phe	Ser	Arg	Tyr	Phe	275	280	285
Gln	Tyr	Glu	Gly	Ser	Leu	Thr	Thr	Pro	Pro	Cys	Ala	Gln	Gly	Val	Ile	290	295	300
Trp	Thr	Val	Phe	Asn	Gln	Thr	Val	Met	Leu	Ser	Ala	Lys	Gln	Leu	His	305	310	315
Thr	Leu	Ser	Asp	Thr	Leu	Trp	Gly	Pro	Gly	Asp	Ser	Arg	Leu	Gln	Leu	325	330	335
Asn	Phe	Arg	Ala	Thr	Gln	Pro	Leu	Asn	Gly	Arg	Val	Ile	Glu	Ala	Ser	340	345	350
Phe	Pro	Ala	Gly	Val	Asp	Ser	Ser	Pro	Arg	Ala	Ala	Glu	Pro	Val	Gln	355	360	365
Leu	Asn	Ser	Cys	Leu	Ala	Ala	Gly	Asp								370	375	

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 <211> 34
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 <213> HUMAN

<400> 88

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34

<210> 89
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<400> 89
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34

<210> 90
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<220>
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gcatgctcgt taagagtcac caccaatccc taatctcaag taatcaggga cacaacact 180
gcggaaggcc gcagggctct ctgcctagga aaaccagaga cctttgttca cttgtttatc 240
tgaccttccc tccactattg tccatgacct tgccaaatcc ccctctgtga gaaacaccca 300
agaattatca ataaaaaaaaa aaatttataa aaaaaataca aaaaaaaaaa aaaaaaaaaa 360
aaaagactta cgaatagtta ttgataaatg aatagctatt ggtaaagcca agtaaagat 420
catattcaaa accagacggc catcatcaca gctcaagtct acctgatttg atctctttat 480
cattgtcatt ctttggattc actagattag tcatcatcct caaaattctc cccaagtctc 540
taattacgtt ccaaacattt aggggttaca tgaagcttga acctactacc ttctttgctt 600
ttgagccatg agttgttaga atgatgagtt tacaccttac atgctgggga ttaattttaa 660
ctttacctct aagtcagttg ggtagccttt ggcttatttt tgtagctaataa tttgtagtta 720
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 aaagggcgct ctgtgagtca gcctgctccc ctccaggctt gtcctcccc caccagctc 3480
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 <211> 204
 <212> DNA
 <213> HUMAN

<400> 91
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 ccctccaggc ttgctcctcc cccacccage tctcgtttcc aatgcacgta cagcccgtac 180
 acaccgtgtg ctgggacacc ccac 204

<210> 92
 <211> 132
 <212> DNA
 <213> HUMAN

<400> 92
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 aaggcagcat gc 132

<210> 93
 <211> 275
 <212> DNA
 <213> HUMAN

<400> 93
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ctgtgcacac acctgcccct cactccaccc ccatactagc tttggtatgg gggagagggc 120
acagggccag acaaacctgt gagactttgg ctccatctct gcaaaagggc gctctgtgag 180
tcagcctgct cccctccagg cttgctcttc cccacccag ctctcgtttc caatgcacgt 240
acagcccgta cacaccgtgt gctgggacac cccac 275

<210> 94
<211> 89
<212> DNA
<213> HUMAN

<400> 94
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ccgtacacac cgtgtgctgg gacaccca 89

<210> 95
<211> 61
<212> DNA
<213> HUMAN

<400> 95
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a 61

<210> 96
<211> 116
<212> DNA
<213> HUMAN

<400> 96
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, acaaacctgt gagactttgg ctccatctct gcaaaagggc gctctgtgag tcagcc 116

<210> 97
<211> 36
<212> PRT
<213> HUMAN

<400> 97
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Pro Pro Gly Glu Glu Asp Leu Pro Gly Glu Glu Asp Leu Pro Gly Glu
20 25 30

Glu Asp Leu Pro
35

<210> 98
<211> 6
<212> PRT
<213> HUMAN

<400> 98
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1 5

<210> 99
<211> 4
<212> PRT
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<400> 99
Glu Glu Asp Leu
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<211> 5
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<400> 100
Glu Glu Asp Leu Pro
1 5

<210> 101
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<400> 101
Glu Asp Leu Pro Ser Glu
1 5

<210> 102
<211> 7
<212> PRT
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<400> 102
Glu Glu Asp Leu Pro Ser Glu
1 5

<210> 103
<211> 6
<212> PRT
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<400> 103

Asp Leu Pro Gly Glu Glu
1 5

<210> 104

<211> 22

<212> PRT

<213> HUMAN

<400> 104

Gly Gly Ser Ser Gly Glu Asp Asp Pro Leu Gly Glu Glu Asp Leu Pro
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Ser Glu Glu Asp Ser Pro
20

<210> 105

<211> 25

<212> PRT

<213> HUMAN

<400> 105

Gly Glu Glu Asp Leu Pro Ser Glu Glu Asp Ser Pro Arg Glu Glu Asp
1 5 10 15

Pro Pro Gly Glu Glu Asp Leu Pro Gly
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<210> 106

<211> 24

<212> PRT

<213> HUMAN

<400> 106

Glu Asp Pro Pro Gly Glu Glu Asp Leu Pro Gly Glu Glu Asp Leu Pro
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Gly Glu Glu Asp Leu Pro Glu Val
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<210> 107

<211> 7

<212> PRT

<213> HUMAN

<400> 107

Gly Glu Thr Arg Ala Pro Leu
1 5

<210> 108

<211> 7

<212> PRT

<213> HUMAN

<400> 108
Gly Glu Thr Arg Glu Pro Leu
1 5

<210> 109
<211> 7
<212> PRT
<213> HUMAN

<400> 109
Gly Gln Thr Arg Ser Pro Leu
1 5

<210> 110
<211> 1247
<212> DNA
<213> HUMAN

<220>
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tggtaccact tggatcataa gtggaaaaac agtcaagaaa ttgcacagta atacttgttt 180
gtaagaggga tgattcaggt gaatctgaca ctaagaaact cccctacctg aggtctgaga 240
ttcctctgac attgctgtat ataggctttt cctttgacag cctgtgactg cggactattt 300
ttcttaagca agatatgcta aagttttgtg agcctttttc cagagagagg tctcatatct 360
gcatcaagtg agaacatata atgtctgcat gtttccatat ttcaggaatg tttgcttgtg 420
ttttatgctt ttatatagac agggaaactt gttcctcagt gacccaaaag aggtgggaat 480
tgttattgga tatcatcatt ggcccacgct ttctgacctt ggaaacaatt aagggttcat 540
aatctcaatt ctgtcagaat tgggtacaaga aatagctgct atgtttcttg acattccact 600
tggtaggaaa taagaatgtg aaactcttca gttgggtgtg gtccctngtt tttttgcaat 660
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<210> 111
 <211> 17
 <212> DNA
 <213> HUMAN

<400> 111
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<210> 112
 <211> 23
 <212> DNA
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<400> 112
 aggcttgctc ctccccacc cag 23

<210> 113
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<400> 113
 agactttggc tccatctc 18

<210> 114
 <211> 20
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<400> 114
 cactccaccc ccatcctagc 20

<210> 115
 <211> 26
 <212> DNA
 <213> HUMAN

<400> 115
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<210> 116
 <211> 20
 <212> PRT
 <213> HUMAN

<400> 116

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser
20